SEQUENCE LISTING

<110> Delcayre, Alain

<120> Compositions isolated from M. vaccae and
their use in modulation of immune responses.

<130> 11000.1047c2

<150> US 10/051,325
<151> 2002-01-18

<150> US 09/455,960
<151> 1999-12-06

<160> 31

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gtgaccgcga tgagaccgga cgaatccacg ttcacgctcg actacgacgt gctcgtcgtc     300
gccgccggca tgcagcagtc ctatttcggc aagcgtcatt tcgcggagtg ggcgccaggg     360
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gcggactcac cgtgatcggc gtgccgtgca accagttcat ggggcaggag cccgggaccg     480
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<213> Mycobacterium vaccae

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aacggcccgg gcaggcatcc gctctacgcc gagctggccc gcgccaccga cgaggacggc 360
gaggccggcg acgtgcagtg gaacttcgag aagttcctgc tcgccccggg cggcaaagtg 420
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<212> DNA
<213> Mycobacterium vaccae

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gaatctgcgc tgaccgaggc cgcttag 687

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<212> DNA
<213> Mycobacterium vaccae

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ctcagcggtg tgcccgcgca cgtcgacgga cgcatgctgc agatctcgga gaccgcgggt 780
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<210> 6
<211> 134
<212> PRT
<213> Mycobacterium vaccae

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20 25 30
Phe Gln Pro Leu Leu Tyr Gln Cys Ala Thr Gly Thr Leu Ser Ile Ala
35 40 45
His Ile Ser Arg Pro Leu Arg Glu Glu Phe Ala Arg Tyr Pro Asn Ile
50 55 60
Arg Thr Leu Leu Gly Lys Ala Val Glu Ile Asp Pro Asp Arg Arg Val
65 70 75 80
Val Thr Ala Met Arg Pro Asp Glu Ser Thr Phe Thr Leu Asp Tyr Asp
85 90 95
Val Leu Val Val Ala Ala Gly Met Gln Gln Ser Tyr Phe Gly Lys Arg
100 105 110
His Phe Ala Glu Trp Ala Pro Gly Met Lys Thr Leu Asp Asp Ala Leu
115 120 125
Gly Ile Arg Gln Arg Ile
130

<210> 7
<211> 165
<212> PRT
<213> Mycobacterium vaccae

<400> 7

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Asn Val Ala Ser Lys Cys Gly Leu Thr Pro Gln Tyr Thr Ala Leu Glu
        35   40   45
Gln Leu Ala Lys Asp Tyr Arg Glu Arg Gly Leu Thr Val Ile Gly Val
    50   55   60
Pro Cys Asn Gln Phe Met Gly Gln Glu Pro Gly Thr Ala Glu Glu Ile
65   70   75   80
Gln Thr Phe Cys Ser Thr Thr Tyr Asp Val Thr Phe Pro Leu Leu Glu
                85   90   95
Lys Thr Asp Val Asn Gly Pro Gly Arg His Pro Leu Tyr Ala Glu Leu
            100   105   110
Ala Arg Ala Thr Asp Glu Asp Gly Glu Ala Gly Asp Val Gln Trp Asn
        115   120   125
Phe Glu Lys Phe Leu Leu Ala Pro Gly Gly Lys Val Val Arg Arg Phe
    130   135   140
Arg Pro Arg Thr Ala Pro Asp Ala Pro Glu Val Ile Ser Ala Ile Glu
145   150   155   160
Asp Val Leu Pro Arg
                165

<210> 8
<211> 228
<212> PRT
<213> Mycobacterium vaccae

<400> 8

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Ala Pro Arg Leu Lys Gly Gly Tyr Arg Leu Asp Arg Asp Ala Ala Thr
        35   40   45
Val Asp Trp Leu Ile Asp Arg Arg Arg Arg Gly Asp Ala Val Val Leu
    50   55   60
His Gly Phe Asp Glu Ala Arg Thr Thr Ala Arg Arg Gly Glu Phe Ala
65   70   75   80
Thr Leu Pro Ala His Glu Ala Asn Leu Arg Leu Met Ala Ala Asp Arg
                85   90   95
Ile Met Glu His Leu Asp Leu Arg Thr Arg Ile Phe Ala Ala Pro Gly
            100   105   110
Trp Asn Val Ser Pro Gly Ala Leu Lys Val Leu Pro Arg Asn Gly Phe
        115   120   125
Arg Val Leu Ala Gly Leu Ala Gly Ile Val Asp Leu Val Gly Gly His
    130   135   140
Thr Val Arg Ala Arg Val Leu Gly Ile Gly Gly Gly Phe Leu Ala Glu
145   150   155   160
Pro Trp Trp Cys Arg Thr Leu Val Leu Ala Ala Glu Arg Thr Ala Arg
                165   170   175
Arg Gly Gly Thr Val Arg Leu Thr Val Ser Ala Arg Gln Leu Ser Arg
            180   185   190
Pro Gly Pro Arg Gln Thr Leu Leu Asp Ala Val Glu Leu Ala Met Leu
        195   200   205
His Ser Gly Ala Ala Thr Val Tyr Arg Trp His Pro Glu Ser Ala Leu

210 215 220
Thr Glu Ala Ala
225

<210> 9
<211> 282
<212> PRT
<213> Mycobacterium vaccae

<400> 9

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            20                  25                  30
Ala Ala Asn Val Gly Gly Gln Ala Phe Trp Ser Phe Gly Gly Leu Phe
        35                  40                  45
Phe Val Asp Ser Pro Glu Gln Arg Arg Met Gly Ile Arg Asp Ser His
    50                  55                  60
Glu Leu Ala Leu Gln Asp Trp Leu Gly Ser Ala Gly Phe Asp Arg Pro
65                  70                  75                  80
Glu Asp His Trp Pro Arg Leu Trp Ala His Ala Tyr Val Asp Phe Ala
                85                  90                  95
Ala Gly Glu Lys Arg Ser Trp Leu Arg Glu Arg Gly Leu Gln Thr Phe
            100                 105                 110
Ala Leu Val Gly Trp Ala Glu Arg Gly Gly Tyr Gly Ala Asn Gly His
        115                 120                 125
Gly Asn Ser Val Pro Arg Phe His Ile Thr Trp Gly Thr Gly Pro Ala
    130                 135                 140
Leu Val Asp Ile Phe Ala Arg Arg Leu Thr Gly Val Pro Arg Val Arg
145                 150                 155                 160
Phe Val His Arg His Arg Val Asp Glu Leu Ile Val Glu Asp Gly Ala
                165                 170                 175
Val Val Gly Val Arg Gly Ala Val Leu Glu Pro Ser Ser Ala Val Pro
            180                 185                 190
Gly Ala Glu Ser Ser Arg Glu Val Val Gly Asp Phe Glu Met Arg Ala
        195                 200                 205
Gln Ala Val Ile Val Ala Ser Gly Gly Ile Gly Gly Asn His Asp Leu
    210                 215                 220
Val Arg Lys Tyr Trp Pro Lys Arg Met Gly Arg Val Pro Glu Gln Leu
225                 230                 235                 240
Leu Ser Gly Val Pro Ala His Val Asp Gly Arg Met Leu Gln Ile Ser
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Glu Thr Ala Gly Ala Ser Val Ile Asn Lys Asp Arg Met Trp His Tyr
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<212> DNA
<213> Mycobacterium vaccae

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gtcgcagcga gtggcagcga ggacaacttg agccgtccgt cgcgggcact gcgcccggcc     180
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<213> Mycobacterium vaccae

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<212> DNA
<213> Mycobacterium vaccae

<400> 12
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<210> 13
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<212> DNA
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<400> 13
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<210> 14
<211> 47
<212> DNA
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<400> 14
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<212> DNA
<213> Mycobacterium vaccae

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<210> 16
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<213> Mycobacterium vaccae

<400> 16
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<210> 17
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<212> DNA
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<400> 17
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<210> 19
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<400> 19
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<210> 24
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<400> 26
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<400> 30
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<210> 31
<211> 17
<212> PRT
<213> Mycobacterium vaccae

<400> 31
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